WHAT IS CLAIMED IS:

1. A non-reciprocal circuit module comprising (a) a permanent magnet for applying a DC magnetic field to a magnetic body, (b) an assembly comprising a plurality of central conductors and said magnetic body placed therein, each of said central conductors having a common terminal at one end and an input/output terminal for a high-frequency signal at the other end, (c) a plurality of load capacitors formed in a laminate constituted by a plurality of dielectric layers having conductor layers and connected to said central conductors, (d) a first transmission line connected to any one of said central conductors, and (e) a second transmission line magnetically coupled to said first transmission line, said first and second transmission lines being formed in said laminate.

2. The non-reciprocal circuit module according to claim 1, wherein said laminate has a pore for receiving said assembly substantially at center.

3. A non-reciprocal circuit module comprising (a) a permanent magnet for applying a DC magnetic field to a magnetic body, (b) an assembly comprising a plurality of central conductors and said magnetic body placed therein, each of said central conductors having a common terminal at one end and an input/output terminal for a high-frequency signal at the other end, and (c) a laminate comprising a plurality of load capacitors formed by conductor layers electrically connected to said assembly and each opposing via a dielectric layer, a first transmission line connected to any one of said central conductors, and a second transmission line magnetically coupled to said first transmission line, the conductor layers of said plural load capacitors on the hot side and the ground side being divided for every load capacitor.

4. The non-reciprocal circuit module according to claim 1, wherein said laminate has a pore for receiving said assembly substantially at center.

5. A non-reciprocal circuit module comprising (a) a permanent magnet for applying a DC magnetic field to a plate-shaped magnetic body, (b) an assembly comprising a central conductor member comprising central conductors extending from a ground electrode formed by a thin copper plate radially in a plurality of directions, and said magnetic body, said central conductors encircling said magnetic body in a mutually insulated manner and crossing substantially at the center of said magnetic body, and (c) a laminate formed by a plurality of dielectric layers having conductor layers and having a pore for receiving said assembly substantially at center, said laminate comprising a plurality of load capacitors each formed by conductor layers opposing via said dielectric layer around said pore, a first transmission line connected to any one of said central conductors, a second transmission line magnetically coupled to said first transmission line, said load capacitors being electrically connected to said assembly, such that one of said load capacitors is electrically connected to said first transmission line via said central conductors, while the other load capacitors are not connected to said first transmission line.

6. The non-reciprocal circuit module according to any one of claims 1-5, wherein an electrostatic capacitor is connected to at least one end of said first transmission line in parallel with said load capacitors, thereby constituting a low-pass filter.

7. The non-reciprocal circuit module according to claim 6, wherein an electrostatic capacitor is connected in parallel with said first transmission line to constitute a parallel resonance circuit, which has an attenuation pole at a resonance frequency thereof.

8. The non-reciprocal circuit module according to any one of claims 1-7, wherein said load capacitors are constituted by conductor layers opposing via said dielectric layer in a lamination direction, part of said

conductor layers being formed on a main surface of said laminate opposing to said permanent magnet.

9. The non-reciprocal circuit module according to any one of claims 1-8, wherein said first transmission line is opposing said second transmission line via said dielectric layer in a lamination direction.

10. The non-reciprocal circuit module according to any one of claims 1-9, wherein said first and/or second transmission line is formed by electrically connecting a plurality of divided conductor layers placed on a plurality of dielectric layers via through-holes.

11. The non-reciprocal circuit module according to any one of claims 1-10, wherein conductor layers constituting said first and second transmission lines have areas overlapping ~~in a~~ lamination direction, which are changed to adjust the degree of coupling.

12. The non-reciprocal circuit module according to any one of claims 1-11, wherein a ground electrode is constituted by a wide conductor layer on a rear surface of said laminate, said ground electrode being a common ground for said first and second transmission lines and said load capacitors.

13. The non-reciprocal circuit module according to any one of claims 1-12, wherein said laminate has a first laminate region in which conductor layers constituting said first and second transmission lines are formed, and a second laminate region in which a plurality of load capacitors constituting a non-reciprocal circuit are formed.

14. The non-reciprocal circuit module according to any one of claims 1-13, wherein said first and second transmission lines are placed such that they do not overlap with conductor layers constituting said load capacitors in a lamination direction.

15. The non-reciprocal circuit module according to any one of claims 1-14, wherein said laminate further comprises a high-frequency amplifier,

an output terminal of said high-frequency amplifier being connected to one end of said first transmission line by said conductor layers in said laminate.

16. The non-reciprocal circuit module according to any one of claims 1-15, wherein said high-frequency amplifier comprises a amplifier circuit comprising a transistor, an input-matching circuit connected to the input terminal of said amplifier circuit, and an output-matching circuit connected to the output terminal of said amplifier circuit, each of said input-matching circuit and said output-matching circuit having a capacitor and an inductor, said transistor of said amplifier circuit being mounted onto said laminate, and said inductor being formed as a transmission line in said laminate.

17. The non-reciprocal circuit module according to claim 16, wherein said low-pass filter is used as an output-matching circuit connected to the output terminal of said amplifier circuit.

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